

# FITNESS TESTING GUIDELINES

JUNE 2011



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House Bill 1757 directs the NC State Board of Education to adopt guidelines for the development and implementation of evidenced-based fitness testing for students in grades Kindergarten through eight. Please note that fitness testing is voluntary; however, if fitness testing is being conducted these newly adopted guidelines should be followed. Implementation of the guidelines is to begin with the 2011-2012 school year.

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## Introduction

With the passage of House Bill 1757 (7/10/2010), the State Board of Education was given the task to adopt guidelines for the development and implementation of evidence-based fitness testing for students statewide in grades Kindergarten through eight. The *Guidelines for Fitness Testing* outline the opportunities and issues associated with the process of implementing fitness testing as required by Session Law 2010-161. The *Guidelines* do not address the specifics of test methodology; rather, they provide the context, benefits, testing overview and associated actions leading toward implementation.

## Philosophy

As described in *Move More: North Carolina's Recommended Standards for Physical Activity in School*, physical activity is a behavior while physical education is a curriculum that includes physical activity. Physical fitness is an outcome related to an individual's ability to perform physical activity. Both the North Carolina Institute of Medicine Task Force on Prevention and the North Carolina Task Force on Preventing Childhood Obesity stated that implementation of quality physical education and healthful living are highly recommended priorities. Likewise, the North Carolina Department of Public Instruction has incorporated the understanding of health-related fitness assessments in the Healthful Living Essential Standards (K.HF.3). Physical Education provides opportunities for students to learn and practice life skills and to be physically active. Fitness testing should provide summaries of an individual student's performance on each component and provides suggestions about how to promote and maintain a high level of fitness.

It has been recommended by The Centers for Disease Control and Prevention (CDC) that children engage in at least 60 minutes of physical activity a day to promote academic achievement as well as to reduce the likelihood of obesity and other negative health outcomes associated with physical inactivity. As reported by the Child Assessment and Monitoring Program, 20% of North Carolina students do not meet this recommendation and 32.3% of students age 10 to 17 are overweight or obese. The health implications for inactivity and obesity include diabetes, asthma, and other health related conditions. Of those students who report a doctor has told them they were overweight or obese, 14.9% have also reported asthma compared to only 8.9% of students in the normal weight range. Furthermore, the weight status of a student is also tied to academic performance in the classroom. Over half of students having a recommended weight status made mostly A's in school. In comparison, 44% of overweight students and only one-third of obese students made mostly A's as self-reported in the 2009 NC Youth Risk Behavior Survey (YRBS) data.

Information gathered from regular fitness testing in schools can provide a picture of fitness levels on a school-wide and state-wide level. Families, teachers, administrators, and communities can use this information to better understand and advocate for fitness for youth across the state of North Carolina. This opportunity may help to reduce high rates of obesity and in turn, create successful, healthy students.

## Guidelines

Physical fitness testing should support the State Board of Education's Healthy and Responsible Students priority and align with the North Carolina Essential Standards for Healthful Living. The purposes of fitness testing are for students to become independent learners; to know and understand their current health status and learn how to maintain or improve their health and fitness. Students should understand that not all students can or need to be elite athletes but ALL students can and should enjoy the benefits of a physically active lifestyle.

The selected fitness test battery should assess health-related physical fitness and use *criterion-referenced standards*. Criterion-referenced standards can be used to determine whether students have met a desirable level of fitness. Such standards are based on research and tying a level of fitness to a positive health outcome. To have a criterion-referenced standard, a fitness test must measure some element that is part of being healthy. In addition, the validity and reliability of the standards must be determined through research studies designed to ensure the scientific integrity of the test battery, protocols, and criteria and to make sure the test results correlate with the intended outcome.

Health-related physical fitness includes the following: aerobic capacity, body composition, muscular strength, muscular endurance, and flexibility.

Examples of test items could include:

- aerobic capacity - pacer, one mile run, walk test
- muscular strength/endurance – curl-up, trunk lift, push-up, flexed arm hang, modified pull-ups
- flexibility – sit and reach, shoulder stretch
- body composition – Body Mass Index (BMI), percent Body Fat (BF)

Appropriate teacher training and technical assistance should be available to teachers to ensure the highest integrity of fitness testing administration throughout the state. Face-to-face and on-line training including videos, power point presentations, and pdf information sheets should be a part of this ongoing training. The selected fitness test battery should be able to produce data which can be used by teachers, physical education coordinators, administrators, research partners, and local and state policy makers. The reporting system should be able to produce easily understood reports for students and their parents and support analysis at the school, LEA, and state-wide levels. Due to the potential cost of printing fitness reports, an electronic report distribution system is recommended. However, alternate methods should be available for those parents without access to email. In addition, a data management system that would allow integration with the current NC student management system (NCWISE) on a web-based platform would allow teachers to access their students' records conveniently and from any internet connection. Security and confidentiality must be maintained for all student data.

The primary use of the data collected from fitness testing is for facilitating fitness education. Fitness test data should provide feedback through reports, inform students about criterion-referenced health standards, and describe what types of activity are needed to reach improved health levels. Fitness test reports should be used by students to track their fitness results over time and provide documentation to their parents. Finally, the results of fitness testing should be used by teachers in curriculum development and individualized instruction. Fitness testing results should not be used to grade individual students in Physical Education. Scores should not be posted. Neither should students' scores be used to evaluate teacher effectiveness nor should they be used as a sole measure to evaluate the overall quality of a physical education program or curriculum.

Assessment of physical activity with pedometers or with other instruments with evidence of validity is recommended, when possible. The process of assessing physical activity sends a crucial message to students and parents that physical activity is important. This recommendation is in agreement with the North Carolina Essential Standards for Healthful Living, which emphasizes implementation of a regimen of health enhancing physical activity.

## **Implementation**

When appropriate and feasible, it is recommended that fitness testing be conducted at the beginning of the school year and at the end of the school year. All students enrolled in Physical Education should be required to be assessed at least one time per year. Testing at the beginning and at the end of the school year can provide information to help students understand their current fitness levels, evaluate their current activity habits, and plan changes to their physical activity programs. In addition, this can provide relevant feedback to teachers and stakeholders about the health-related fitness status of students.

Fitness test administrators should be trained prior to measurement of students. Results of all testing should be shared, confidentially, with the student and his/her parent. School data should be shared with the LEA and the state, when appropriate.

## **Call to Action**

North Carolina has both a tremendous opportunity and obligation to make a difference in the health of its children. Physical Education provides a critical learning opportunity for lifetime skills and should include fitness testing as part of the periodic evaluation process.

Fitness testing provides learning and growth opportunities for the student and improvement and specialization of classroom instruction. Also, results from fitness testing provide constructive feedback about the current health trends to the school and the LEA. Assessment of physical fitness and physical activity provide an opportunity to promote physical activity as the norm. Results from fitness testing can be used to engage families and the community as supporting resources. It should be noted that the goal of fitness testing is not to focus on measurement and assessment of fitness in and of itself but on the individual student's ability to develop life-long health skills.

## **Be A Part of the Solution**

### **Students**

- Learn the importance of health and fitness
- Learn how to assess fitness levels
- Set personal goals and track success over time
- Engage in at least 60 minutes of physical activity each day

### **Families**

- Ask your child's teacher for fitness testing results and opportunities to improve
- Understand the needs of your child and develop family activity plans
- Advocate for increased health education, physical education, and physical activity in the schools
- Volunteer to assist with fitness testing

### **Teachers/Staff**

- Use results to develop and implement physical education lessons and health activities that meet the needs and enhance the skills of the whole class
- Set individualized goals for students and encourage success
- Track fitness levels and physical activity for students and classes over time
- Advocate for more healthful living education in the schools

### **Principals**

- Encourage individual student success
- Institute school-wide improvements
- Use fitness level data to make county-wide and state-wide comparisons
- Support environments that encourage physical activity
- Advocate for more health education, physical education and physical activity in all schools, for all students

### **School Superintendents/School Board Members**

- Encourage the development of a fitness testing policy in your district
- Require fitness testing and comprehensive quality physical education and health education instruction for Kindergarten through eighth grade and encourage continuation through high school

### **Community and State Leaders**

- Advocate for more health education, physical education, and physical activity in all schools, for all students
- Assist schools with fitness testing and other events which promote physical activity

## References

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